

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

FOUR NEW GRASSHOPPER MICE, GENUS *ONYCHOMYS*.

BY C. HART MERRIAM.

Among the large series of grasshopper mice in the collection of the Biological Survey are four forms which appear to require recognition by name. Three of these belong to the small *torridus* group; the fourth to the much larger *leucogaster* group. The new forms may be known from the following descriptions:

***Onychomys torridus tularensis* subsp. nov.**

Type from Bakersfield, Kern County, Calif. Adult female, No. $\frac{29711}{41788}$, U. S. National Museum, Biological Survey Collection. July 19, 1891. A. K. Fisher. Orig. No. 792.

Characters.—Size small; color pale drab gray, barely tinged with buffy. Similar to *O. torridus longicaudus* but much paler and without the ochraceous suffusion. Compared with *O. ramona* the difference is still more marked, *ramona* being a very dark form. The type specimen has just moulted the hair of the face and head and as a result the new pelage on these parts is darker than usual.

Range.—The Tulare basin from Huron and Alcalde south, and adjacent Carrizo Plains on the west and Kern Valley on the east.

Measurements.—Average of 5 adults: Total length, 143; tail vertebrae, 50.5; hind foot, 21.

***Onychomys torridus yakiensis* subsp. nov.**

Type from Camoa, Rio Mayo, southern Sonora, Mexico. Adult female, No. 95,855, U. S. National Museum, Biological Survey Collection. Oct. 28, 1898. E. A. Goldman. Orig. No. 13,158.

Characters.—Color similar to that of *Onychomys torridus ramona*, but size slightly larger (hind foot averaging 22.5 instead of 20.5). Median dorsal area, from crown to base of tail, usually much darker than sides of back. Compared with *torridus*, *longicaudus*, and *ramona*, the molar teeth, particularly the anterior molars, are broader and heavier, and the palate usually ends posteriorly in a median projection—in *torridus* and *ramona* it is concave.

Measurements.—Type specimen: Total length, 154; tail vertebræ, 53; hind foot, 22. Average of 6 specimens from type region: Total length, 149; tail vertebræ, 53; hind foot, 22.5.

Remarks.—*Onychomys yakiensis* has the dark head, large ears, and general coloration of *ramona*, in which respects it differs from typical *torridus*. Its range appears to be western Sonora and northern Sinaloa, and may join that of *ramona* around the head of the Gulf of California. The collection of the Biological Survey contains 19 specimens of this form from Camoa and Alamos, Sonora, and Sinaloa, Sinaloa. The series comprises both pelages (grayish brown and dull fulvous) and various ages. The young when half grown are dark gray like those of *ramona*; when nearly full grown they are pale smoke gray, much paler than *ramona* of corresponding age.

***Onychomys torridus canus* subsp. nov.**

Type from San Juan Capistrano, Zacatecas, Mexico. Adult female, No. 90,843, U. S. National Museum, Biological Survey Collection. Aug. 23, 1897. E. W. Nelson and E. A. Goldman. Orig. No. 11,574. -

Characters.—Similar to *torridus* in general characters, but tail and ears longer, and color drab gray or grayish clay-color instead of fulvous.

Measurements.—Type specimen: Total length, 152; tail vertebræ, 55; hind foot, 22. Average of 5 specimens from type locality: Total length, 150; tail, 54; hind foot, 22.

Remarks.—In addition to the Zacatecas specimens, others are at hand from Rio Verde and Jesus Maria, San Luis Potosi.

***Onychomys leucogaster albescens* subsp. nov.**

Type from Samalayuca, Chihuahua, Mexico. Adult female, No. 50,040, U. S. National Museum, Biological Survey Collection. Dec. 12, 1892. C. P. Streater. Orig. No. 2399.

Characters.—Size large. Similar to *O. leucogaster pallescens* from Hopi Pueblos of Arizona, but much paler, and with cheeks and thighs snowy-

white. Upperparts buffy, deepest on rump; face from nose to eyes whitish, faintly washed with buff; *cheeks, legs, and thighs snow-white* like underparts.

Skull, compared with that of *pallescens*, smaller and weaker, braincase narrower, more rounded (less flattened on top); rostrum weaker; zygomata much narrower and rounded off anteriorly, slightly spreading posteriorly. [In *pallescens* as in *leucogaster* they stand out much farther and more squarely, enclosing a much larger orbital fossa.]

Measurements.—Type specimen: Total length, 160; tail vertebræ, 60; hind foot, 23.

Remarks.—The type specimen, which is in fresh winter pelage, has long soft fur and is the most beautiful mouse I have ever seen. With it are two young-adults, not quite full grown, from the same locality. One of these is like the type, only not quite so pale; the other has the upperparts pale smoke-gray slightly suffused with buffy.